

Application No. 09/654,871  
Reply to Office Action of December 10, 2003

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following remarks is respectfully requested.

Claims 1-20 are presently active in this application, Claims 1, 2, 6, 7, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20 having been amended by the present Amendment.

In the outstanding Office Action, the drawings were objected to as requiring correction; Claims 1-2, 9 and 12 were rejected under 35 USC §102(e) as being anticipated by Kuo et al (U.S. patent 6,618,439, hereinafter called “Kuo”); Claims 6-8, 11, 16-17 and 20 were rejected under 35 USC §103(a) as being unpatentable over Kuo in view of Chen et al (U.S. patent 6,208,693, hereinafter called “Chen”); and Claims 3-5, 10, 13-15 and 18-19 were objected to as being dependent upon a rejected base claim, but otherwise allowable if rewritten in independent form.

Applicants acknowledge with appreciation the indication of allowable subject matter. However, since Applicants consider that the amended claims patentably define over the cited art, Claims 3-5, 10, 13-15 and 18-19 have presently been maintained in dependent form.

The present amendment to the claims is considered clarifying in nature, and no new matter has been added.

Turning now to the outstanding rejection of Claims 1-2, 9, and 12 under 35 U.S.C. 102(e) as being anticipated by Kuo, Kuo discloses a method of block-based motion-compensated interpolation of a video signal based on blockwise motion vectors and frame information of a plurality of coded frames provided by a video decoder. The Kuo method includes performing a segmentation operation on the plurality of frames of the video signal to identify an initial moving object block and background information blocks, classifying a

moving object block and a background information blocks to generate interpolated blocks, and processing the interpolated blocks to generate an interpolated frame.<sup>1</sup> In other words, Kuo discloses a technique of generating an interpolated frame using coded frames in order to increase a frame rate on a decoder side. While Kuo teaches surely separating a background and a non-background using coded frames, Kuo does not teach detecting adjacent unit areas representing the non-background area using a result of determining whether a video signal is a background or a non-background to determine the adjacent unit areas as an area of a moving object, a feature of the claimed invention, described in more detail in the non-limiting disclosure provided at page 18, lines 15-23 of the specification.

Chen discloses an encoding system using chroma-key shape coding to implicitly encode shape information with texture information. The encoding system includes a boundary box generator and color replacer, a DCT encoder, a quantizer, a motion estimator/compensator and a variable length coder. In other words, Chen discloses a technique of generating shape information using chroma-key color to perform shape coding of MPEG-4. Encoding an image of an arbitrary shape by forming a bounding box is a feature of shape encoding of MPEG-4. Chen is directed to implementing the encoding automatically.

On the contrary, Applicants' invention recited in amended Claim 1 consistent with the non-limiting example described at page 18, lines 15-23 of the specification includes determining whether a video signal in a given unit area represents a background area or a non-background area from a decoded video signal and detecting adjacent unit areas representing the non-background area using the determination result to determine the

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<sup>1</sup> Kuo, col. 6, lines 25-47, col. 8, lines 60-67, and col. 9, lines 39-42.

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adjacent unit areas as an area of a moving object. In other words, Applicants generate a bounding box (a moving object area) of a moving object based on encoded data obtained by compression-encoding a motion video signal. Chen does not teach the claimed feature of detecting adjacent unit areas representing the non-background area using a result of determining whether a video signal is a background or a non-background to determine the adjacent unit areas as an area of a moving object. Thus, it is respectfully submitted that Chen fails to remedy the deficiencies of Kuo, and it is respectfully submitted that the amended claims patentably distinguish over both of the applied references.

Consequently, in view of the present amendment, and in light of the above discussion, it is respectfully submitted that the amended claims are in condition for allowance, and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,  
MAIER & NEUSTADT, P.C.



Eckhard H. Kuesters  
Attorney of Record  
Registration No. 28,870

Customer Number  
**22850**

Tel: (703) 413-3000  
Fax: (703) 413 -2220  
(OSMMN 08/03)

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